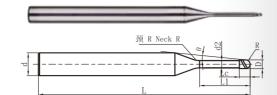
UM-BN2 小径深加工2刃球头立铣刀 2 flute, ball nose endmill for small diameter & machining 硬质 AlCrSiN



R>0.25

 ± 0.005

(mm)

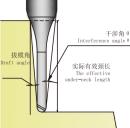
订货号	外径 (D)	球半径 (R)	颈长 (L1)	刃长 (Lc)	全长 (L)	柄径 颈 (d) (R)	干涉角 (Θ)	The effect	对应拔模角的有效颈长 The effective under-neck length for the various draft angles									
Ordering Code	Mill Dia.	Ball Radius	Under Neck Length	Flute Length	(d2) ^{Neck} Dia.	Overall Length	Shank Dia.	Neck R	Interference Angle	0.5°	1°	1.5°	2°	3°	库存 Stock			
UM-BN2-01002			0.2						14.66	0.2	0.21	0.22	0.24	0.26				
UM-BN2-01003	0.1	0.05	0.3	0.08	0.08	50	4	1	14.48	0.31	0.33	0.34	0.36	0.39				
UM-BN2-01005			0.5						14.12	0.52	0.55	0.57	0.59	0.64				
UM-BN2-02005			0.5						14.21	0.51	0.53	0.55	0.57	0.61				
UM-BN2-020075			0.75						13.77	0.78	0.8	0.83	0.86	0.92				
UM-BN2-02010	0.2		1						13.36	1.04	1.07	1.11	1.15	1.23				
UM-BN2-020125		0.1	1.25		0.17	50		1	12.97	1.3	1.34	1.39	1.43	1.54				
UM-BN2-02015		0.1	1.5	0.16	0.17	50	4	1	12.6	1.56	1.61	1.66	1.72	1.85				
UM-BN2-02020			2						11.92	2.07	2.14	2.22	2.3	2.48				
UM-BN2-02025			2.5						11.31	2.59	2.68	2.77	2.87	3.1				
UM-BN2-02030			3						10.76	3.11	3.21	3.33	3.45	3.72				
UM-BN2-03005			0.5						14.17	0.52	0.55	0.57	0.6	0.66				
UM-BN2-030075			0.75			50		13.7	13.72	0.79	0.83	0.87	0.91	0.98				
UM-BN2-03010			1		0.27				13.3	1.05	1.11	1.16	1.2	1.29	•			
UM-BN2-030125			1.25	0.24					$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			1.61	•					
UM-BN2-03015	0.3	0.15	1.5				4	2			1.92							
UM-BN2-03020			2							11.84 2.11 2.2 2.28 2.36 2 11.22 2.63 2.74 2.83 2.93 3 10.66 3.15 3.27 3.39 3.51 3	2.54	•						
UM-BN2-03025			2.5								3.16	•						
UM-BN2-03030			3											3.78				
UM-BN2-040075			0.75						13.78		0.97	•						
UM-BN2-040015	0.4		1	0.32	0.37	50			13.34	1.05	1.1	1.15	1.19	1.28	•			
UM-BN2-04015			1.5										1.19	1.20				
UM-BN2-04013		0.2	2						12.33		2.35	2.53						
UM-BN2-04020			2.5				4	2	11.04	2.11 2.63	2.19 2.73	2.27	2.93	3.15				
UM-BN2-04025	0.4	0.2	3				4		10.63	3.15	3.27	3.38	3.5	3.15	•			
																		-
UM-BN2-04035			3.5						10.12	3.67	3.8	3.94	4.08	4.39				
UM-BN2-04040			4						9.65	4.19	4.34	4.49	4.65	5.01	-			
UM-BN2-04045			4.5						9.22	4.71	4.87	5.04	5.23	5.63				
UM-BN2-05010			1						13.39	1.05	1.09	1.14	1.19	1.27				
UM-BN2-05015			1.5						12.56	1.58	1.65	1.71	1.77	1.89				
UM-BN2-05020			2				4		11.83	2.1	2.19	2.27	2.34	2.51				
UM-BN2-05025			2.5						11.18	2.63	2.73	2.82	2.92	3.14				
UM-BN2-05030	0.5	0.25	3	0.4	0.47	50		2	10.6	3.15	3.27	3.38	3.49	3.76				
UM-BN2-05040	0.0	0.20	4		0.47	50		-	9.6	4.19	4.34	4.48	4.64	5	•			
UM-BN2-05050			5						8.77	5.23	5.41	5.59	5.79	6.24				
UM-BN2-05055			5.5						8.4	5.75	5.94	6.15	6.37	6.86				
UM-BN2-05060			6						8.07	6.27	6.48	6.7	6.94	7.49				
UM-BN2-05080			8						6.96	8.33	8.62	8.92	9.24	9.97				
UM-BN2-06010			1						13.15	1.07	1.14	1.2	1.27	1.41				
UM-BN2-06020			2						11.61	2.15	2.28	2.39	2.5	2.7				
UM-BN2-06025	0.6	0.3	2.5	0.48	0.57	50	4	4	10.96	2.68	2.84	2.97	3.09	3.32				
UM-BN2-06030			3						10.38	3.22	3.39	3.54	3.67	3.95				
UM-BN2-06035			3.5						9.86	3.75	3.94	4.1	4.25	4.57				
●标准库存 Stock		需预定 A	vailabl	e Upor	n Order		推荐	切削	参数P167	/P172		球半径R R≤0.25		公差 Tol. ±0.003				

UM-BN2

小径深加工2刃球头立铣刀 2 flute, ball nose endmill for small diameter & machining

	15°	_	颈 R Nee	<u>ck</u> R								D1 -	raft angle	实际有 The ef under-neck	效颈长 Tective a length
	-+-	-74	<u> </u>												
				颈长		-								-	
		-	Under	Neck Le	ength										1
	外径	球半径	颈长	刃长	颈径	全长	柄径	颈	干涉角		动成坊	模角的有	动场长		1
订货号	(D)	(R)	(L1)	(Lc)	(d2)	$\left \begin{array}{c} \pm \mathbf{L} \\ (\mathbf{L}) \end{array} \right $	(d)	(R)	(Θ)	The effect			the various dr	aft angles	库存
Ordering Code	Mill	Ball	Under Neck	Flute	Neck	Overall	Shank	Neck	Interference	0.5°	1°	1.5°	2°	3°	Stock
	Dia.	Radius	Length	Length	Dia.	Length	Dia.	R	Angle	0.5	L L	1.5	2	3	
UM-BN2-06040			4			50			9.39	4.28	4.48	4.66	4.82	5.19	
UM-BN2-06045			4.5			50			8.97	4.81	5.03	5.21	5.4	5.81	
UM-BN2-06050			5			50			8.57	5.33	5.57	5.77	5.97	6.43	
UM-BN2-06055			5.5			50			8.22	5.86	6.11	6.32	6.55	7.05	
UM-BN2-06060	0.6	0.3	6	0.48	0.57	50	4	4	7.89	6.38	6.64	6.87	7.12	7.67	
UM-BN2-06070			7			50			7.3	7.43	7.71	7.98	8.27	8.92	
UM-BN2-06080			8			50			6.79	8.48	8.78	9.09	9.42	10.16	
UM-BN2-06090			9			50			6.35	9.52	9.85	10.2	10.57	11.4	
UM-BN2-06100			10 12			50			5.97	10.56	10.92	11.31	11.72 14.02	12.65	
UM-BN2-06120						50			5.32	12.63	13.06	13.52		15.13	
UM-BN2-07020			2			50			11.6	2.14	2.27	2.39	2.49	2.69	
UM-BN2-07040 UM-BN2-07060	0.7	0.35	4	0.56	0.67	50 50	4	4	9.33 7.81	4.27 6.38	4.48 6.64	4.65 6.87	4.81	5.18 7.66	
UM-BN2-07080			8			50			6.71	8.47	8.78	9.09	9.41	10.15	•
UM-BN2-08020			2			50			11.64	2.12	2.24	2.35	2.45	2.63	
UM-BN2-08040			4			50			9.3	4.25	4.44	4.61	4.77	5.12	
UM-BN2-08050		0.4	5		0.76	50			8.45	5.3	5.53	5.72	5.92	6.36	
UM-BN2-08060	0.8		6	0.64		50	4	4	7.74	6.35	6.6	6.83	7.07	7.61	
UM-BN2-08080			8			50			6.63	8.44	8.74	9.04	9.37	10.09	•
UM-BN2-08100			10			50			5.8	10.52	10.88	11.26	11.67	12.58	
UM-BN2-09020			2			50			11.63	2.12	2.23	2.34	2.44	2.62	
UM-BN2-09040		a :-	4			50			9.24	4.25	4.44	4.6	4.76	5.11	
UM-BN2-09060	0.9	0.45	6	0.72	0.86	50	4	4	7.66	6.35	6.6	6.82	7.06	7.6	
UM-BN2-09080			8			50			6.54	8.44	8.74	9.04	9.36	10.08	
UM-BN2-10020			2			50			11.62	2.12	2.23	2.33	2.43	2.61	
UM-BN2-10030			3			50			10.25	3.18	3.34	3.48	3.6	3.85	
UM-BN2-10040			4		0.96	50			9.17	4.24	4.43	4.6	4.75	5.1	
UM-BN2-10050			5			50			8.29	5.3	5.52	5.71	5.9	6.34	
UM-BN2-10060			6			50			7.57	6.35	6.59	6.81	7.05	7.58	
UM-BN2-10070			7			50			6.96	7.39	7.66	7.92	8.2	8.83	
UM-BN2-10080			8			50			6.44	8.44	8.73	9.03	9.35	10.07	
UM-BN2-10090	1	0.5	9	0.8		50	4	4	5.99	9.48	9.8	10.14	10.5	11.31	
UM-BN2-10100			10			50			5.6	10.52	10.87	11.25	11.65	12.56	
UM-BN2-10120			12			55			4.96	12.59	13.01	13.46	13.95	15.04	
UM-BN2-10130			13			55			4.69	13.62	14.08	14.57	15.1	16.29	
UM-BN2-10140			14			55			4.45	14.66	15.15	15.68	16.25	17.53	
UM-BN2-10160			16			55			4.03	16.73	17.29	17.9	18.55	20.01	
UM-BN2-10180			18			60			3.69	18.79	19.43	20.11	20.85	22.5	
UM-BN2-10120			20			60			3.4	20.86	21.57	22.33	23.15	24.99	
UM-BN2-11020			2			50			11.61	2.11	2.22	2.32	2.42	2.6	
UM-BN2-11040	1.1	0.55	4	0.88	1.06	50	4	4	9.09	4.24	4.43	4.59	4.74	5.08	
UM-BN2-11060			6			50			8.57	5.33	5.57	5.77	5.97	6.43	
UM-BN2-11080			8			50			6.34	8.43	8.73	9.03	9.34	10.06	
球半径R	公差	Tol.							•	标准库存			定 Availa	ble Upor	ı Orde
R≤0.25	±0.0	03								推着	芽切削参	数P168	8/P173		
R>0.25	±0.0	05	(mm)											E/106	

合金



PAGE / 106 -

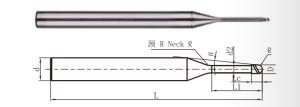
UM-BN2

2

AlCrSi

硬质

小径深加工2刃球头立铣刀 2 flute, ball nose endmill for small diameter & machining



R≤0.25

R>0.25

 ± 0.003

 ± 0.005

(mm

订货号	 外径 (D)	球半径 (R)	颈长 (L1)	刃长 (Lc)	颈径 (d2)	全长 (L)	柄径 (d)	颈 (R)	干涉角 (Θ)						库存
Ordering Code	Mill Dia.	Ball Radius	Under Neck Length	Flute Length	Neck Dia.	Overall Length	Shank Dia.	Neck R	Interference Angle	0.5°	1°	1.5°	2°	3°	Stock
UM-BN2-11100	1.1	0.55	10	0.88	1.06	50	4	4	5.5	10.51	10.87	11.24	11.64	12.54	
UM-BN2-12040			4			50			9.05	4.22	4.4	4.55	4.7	5.04	
UM-BN2-12080	1.0	0.0	8	0.00	1.15	50			6.25	8.41	8.7	8.99	9.3	10.01	
UM-BN2-12100	1.2	0.6	10	0.96	1.15	50	4	4	5.41	10.49	10.84	11.21	11.6	12.5	
UM-BN2-12120			12			55			4.77	12.56	12.97	13.42	13.9	14.98	
UM-BN2-14080			8			50			6.04	8.38	8.66	8.95	9.26	9.96	•
UM-BN2-14120	1.4	0.7	12	1.12	1.34	55	4	4	4.56	12.53	12.94	13.38	13.86	14.93	
UM-BN2-14160			16			55			3.67	16.66	17.22	17.82	18.46	19.9	
UM-BN2-15040			4			50			8.82	4.2	4.36	4.51	4.65	4.97	
UM-BN2-15060			6			50			7.08	6.29	6.52	6.73	6.95	7.46	
UM-BN2-15080			8			50			5.92	8.38	8.66	8.95	9.25	9.94	
UM-BN2-15100	1		10			50			5.08	10.46	10.8	11.16	11.55	12.43	
UM-BN2-15120	1.5	0.75	12	1.2	1.44	55	4	4	4.45	12.53	12.94	13.38	13.85	14.92	
UM-BN2-15140			14			55			3.96	14.6	15.08	15.6	16.15	17.4	
UM-BN2-15160			16			55			3.57	16.66	17.22	17.81	18.45	19.89	•
UM-BN2-15180			18			60			3.25	18.73	19.36	20.03	20.75	22.38	
UM-BN2-15200			20			60			2.98	20.8	21.5	22.25	23.05	-	
UM-BN2-16080			8			50			5.8	8.38	8.66	8.94	9.25	9.93	
UM-BN2-16120	1.6		12		1.54	55		4	4.34	12.53	12.94	13.37	13.85	14.9	
UM-BN2-16160		0.8	16	1.28		55	4		3.47	16.66	17.21	17.81	18.44	19.88	
UM-BN2-16200			20			60			2.89	20.8	21.49	22.24	23.04	-	
UM-BN2-18080			8			50			5.55	8.36	8.63	8.91	9.21	9.88	
UM-BN2-18120			12 16		1.73	55			4.11	12.5	12.91	13.34	13.81	14.85	
UM-BN2-18160	1.8	0.9		1.44		55	4	4	3.26	16.64	17.19	17.77	18.41	19.83	
UM-BN2-18200			20			60			2.7	20.77	21.46	22.21	23.01	-	
UM-BN2-20030			3			50			9.72	3.11	3.22	3.32	3.42	3.62	
UM-BN2-20040			4			50			8.32	4.16	4.31	4.44	4.57	4.86	•
UM-BN2-20060			6 8 10			50			6.46	6.26	6.46	6.66	6.87	7.35	
UM-BN2-20080						50			5.27	8.34	8.6	8.88	9.17	9.84	•
UM-BN2-20100						50			4.46	10.41	10.74	11.09	11.47	12.32	
UM-BN2-20120			12			55			3.86	12.48	12.88	13.31	13.77	14.81	•
UM-BN2-20120			13			55			3.62	13.51	13.95	14.42	14.92	16.05	
UM-BN2-20140			14			55			3.4	14.55	15.02	15.53	16.07	17.29	
UM-BN2-20140	2	1	16	1.6	1.92	55	4	4	3.04	16.62	17.16	17.74	18.37	19.78	
UM-BN2-20180			18			60			2.75	18.68	19.3	19.96	20.67	-	
UM-BN2-20200			20			60			2.75	20.75	21.44	22.18	20.07	-	
UM-BN2-20220			20			60			2.31	22.82	23.58	24.39	25.27	_	
UM-BN2-20220			25			65			2.06	25.92	26.79	27.72	28.72	-	
UM-BN2-20300			30			70			1.75	31.09	32.14	33.26	-	-	
UM-BN2-20350			35			75			1.75	36.26	37.48	38.8	-	-	
UM-BN2-20400			40			80			1.32	41.42	42.83	-	-	-	
UM-BN2-25060			6			50			5.62	6.22	6.41	6.6	6.8	7.25	
UM-BN2-25100	2.5	1.25	10	2	2.4	50	4	4	3.69	10.37	10.69	11.03	11.4	12.23	•
● 标准库存 Stock		需预定 A	vailabl	e Upor	n Ordei	r	推荐出	刀削者	参数P169	/P175		球半径R	2	公差 Tol.	

UM-BN2

小径深加工2刃球头立铣刀 2 flute, ball nose endmill for small diameter & machining

颈 R Neck R Under Neck Length 外径 球半径 颈长 刃长 颈径 全长 机 (D) (R) (L1) (LC) (d2) (L) Mill Ball Neck Length Dia. Verall Length 订货号 Ordering Code UM-BN2-25150 15 55 UM-BN2-25200 50 20 2.5 1.25 2 2.4 UM-BN2-25250 50 25 UM-BN2-25300 30 50 UM-BN2-30080 50 8 50 UM-BN2-30100 10 50 UM-BN2-30130 13 UM-BN2-30160 16 50 1.5 2.4 2.88 3 UM-BN2-30200 20 50 50 UM-BN2-30250 25 50 UM-BN2-30300 30 35 50 UM-BN2-30350 UM-BN2-35150 15 50 50 UM-BN2-35250 25 3.5 1.75 2.8 3.36 35 50 UM-BN2-36350 UM-BN2-35450 45 50 UM-BN2-40100 10 50 UM-BN2-40130 13 50 50 UM-BN2-40160 16 50 20 UM-BN2-40200 50 25 UM-BN2-40250 2 3.2 3.86 4 50 UM-BN2-40300 30 UM-BN2-40350 35 50 50 UM-BN2-40400 40 50 45 UM-BN2-40450 UM-BN2-40500 50 50 UM-BN2-50200 20 50 25 50 UM-BN2-50250 2.5 4.85 5 4 50 30 UM-BN2-50300 50 UM-BN2-50400 40 UM-BN2-60120 12 50 UM-BN2-60200 20 50 6 5.85 3 6 30 55 UM-BN2-60300 55 UM-BN2-60500 50 推荐

● 标准库存 Stock ○ 需预定 Available Upon Order

PAGE / 107



§径 d)	颈 (R)	干涉角 (Θ)	对应拔模角的有效颈长 The effective under-neck length for the various draft angles								
hank Dia.	Neck R	Interference Angle	0.5°	1°	1.5°	2°	3°	Stock			
4		2.59	15.54	16.04	16.58	17.15	-	\bigcirc			
	4	1.99	20.71	21.39	22.12	-	-				
4	4	1.62	25.88	26.74	27.66	-	-				
		1.36	31.05	32.09	-	-	-				
		7.04	8.27	8.51	8.77	9.04	9.65				
		6.05	10.34	10.65	10.98	11.34	12.14				
		5	13.44	13.86	14.31	14.79	15.87				
c	4	4.26	16.55	17.07	17.63	18.24	19.6				
6	4	3.56	20.68	21.35	22.07	22.84	24.57				
		2.95	25.85	26.7	27.61	28.59	-				
		2.52	31.02	32.05	33.15	34.34	-				
		2.2	36.19	37.39	38.69	40.08	-				
6 4		3.99	15.49	15.96	16.48	17.03	18.27				
	4	2.56	25.82	26.66	27.56	28.53	-				
		1.89	36.16	37.36	38.64	-	-				
		1.5	46.5	48.05	-	-	-				
		4.86	10.31	10.6	10.91	11.24	11.99				
		3.88	13.41	13.81	14.23	14.69	15.72				
		3.23	16.51	17.02	17.56	18.14	19.45				
		2.63	20.65	21.3	21.99	22.74	-				
~	4	2.14	25.81	26.64	27.53	28.49	-				
6	4	1.81	30.98	31.99	33.08	-	-				
		1.56	36.15	37.34	38.62	-	-				
		1.38	41.32	42.69	-	-	-				
		1.23	46.49	48.04	-	-	-				
		1.11	51.66	53.39	-	-	-				
		1.48	20.62	21.25	-	-	-				
~	4	1.18	25.79	26.6	-	-	-				
6	4	0.98	30.96	-	-	-	-				
		0.73	41.29	-	-	-	-				
		-	-	-	-	-	-				
~		-	-	-	-	-	-				
6	-	-	-	-	-	-	-				
		-	-	-	-	-	-				
荸切	削参	数P170/	P175		球半径R	_/,	、差 Tol				

球半径R	公差 Tol.	
R≤0.25	±0.003	
R>0.25	±0.005 (m	ım)

PAGE / 108 -